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Note.

Since the foregoing was written a very decided change has taken place in the light of this star. My last measure given above was made on March 9, and during the time covered by these observations there had been but little change in the magnitude. The difference from night to night was hardly perceptible, and the diminution did not appear to amount to more than half a magnitude. On March 13 a change was very apparent, and it was then but little, if any, brighter than D.M. (30°) 942, the new double star referred to in the foregoing. Argelander's magnitude of this is 8·0. On the 15th a comparison with D.M. (30°) 913, 924, and 942 gave 8·5 as the magnitude of the new star; on the 16th it was apparently 8·6; on the 20th it was estimated 9·3; and on the 21st, my last examination, it was 9·4. At the present rate of decrease it will soon be comparable with some of the fainter stars I have measured. These stars have a sufficient range of magnitude to be useful for comparison as long as the new star is within the reach of any telescope.

The Double Star, Σ3123. By S. W. Burnham.

There is, perhaps, not another double star in Struve's great work, *Mensuræ Micrometricæ*, which has been measured so rarely as Σ3123. It has been known for more than sixty years, and yet at the most there are but five sets of measures, and two of these are within the last ten years. The scarcity of measures is undoubtedly due to the fact that it is at all times a difficult pair, and beyond the reach of many telescopes used in micrometrical work. There are some observations showing that this star, at various times, was apparently single.

The following are both the positive and the negative results arranged in chronological order:—

	°	″		
1832·20	289·7	0·3	W. Struve	3*n*
1840·43	265· ±	obl.	O. Struve	2*n*
1841·41	268·7	0·44	O. Struve	1*n*
1841·56	275·3	0·3 ±	Madler	1*n*
1842·78	291·3	0·2 ±	Madler	1*n*
1851·44	Elong. in 231° ?		O. Struve	1*n*
1858·44	Single		O. Struve	1*n*
1861·26	Single		O. Struve	1*n*
1862·39	Single		O. Struve	1*n*
1862·95	Single		Dembowski	1*n*
1868·56	Single		O. Struve	1*n*
1881·32	Round		Bigourdan	1*n*
1881·38	221·9	0·32	Burnham	2*n*
1892·14	200·0	0·37	Burnham	3*n*

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A careful examination of these observations shows that probably this is a case of slow angular motion, with very little change in the distance. The motion is retrograde, and the distance cannot have been at any time much less than 0″·3. An annual motion of about 1°·5 in position-angle will represent the observations as well as could be expected in a pair of this kind. My measures in 1881 were made with the 15½-inch refractor of the Washburn Observatory, with which this pair was well seen. The last measures were made here with the 36-inch. With the larger telescope, of course, such a pair is very easy under any suitable conditions, and the observations should represent the relations of the components very accurately. The two stars are sensibly equal in magnitude, but there is hardly any doubt about the quadrant, because the angular change between 1832 and 1841, and between 1881 and 1892, would seem to show that there could not have been an occultation during the intervening time when it was not seen double, nor any considerable diminution in the distance. Evidently this is not so interesting a binary as heretofore supposed, since the angular motion in sixty years is only about 90°.

The place of this star (1880) is:—

R. A. $12^h\ 0^m\ 0^s$
Decl. +69° 22′

It is desirable that this pair should be carefully measured every few years.

Mount Hamilton:
March 10.

A New Binary Star, β 581. By S. W. Burnham.

This fine triple star was discovered in 1878 with the 18½-inch refractor of the Dearborn Observatory. As the close pair was 0″·4 in distance, it was readily measurable with that instrument, and with a moderately close third star it was an interesting object on the telescope, visually at least. About the same time it was measured by Dembowski, and a few years later by Engelmann, so that we have good positions for the components at that time. I have recently looked it up, and made a set of measures with the 36-inch refractor of this observatory. Since these last measures were made I have received from Schiaparelli two sets of measures which fill an important place in the intervening period.

The following are all the measures of both components to this time:—

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